# Annual Report of Operations for Year 2018

**To comply with NPDES General Permit No. WAG130000 for Federal Aquaculture Facilities and Aquaculture Facilities Located in Indian Country within the Boundaries of the State of Washington**

| **NPDES # for your Facility:** |
|---|
| WAG-13-0018 |

## Facility & Owner Information

| | |
|---|---|
| Facility Name: Lummi Bay Hatchery | |
| Operator Name (Permittee): Lummi Indian Business Council | |
| Address: Physical Address: 3801 "B" Haxton Way Bellingham, WA 98226 | Lummi Indian Business Council 2665 Kwina Road Bellingham, WA 98226 |
| Email: tomc@lummi-nsn.gov | Phone: 360-384-2221 |
| Owner Name (if different from operator): | |
| Email: | Phone: |

## Best Management Practices (BMP) Plan

Has the BMP Plan been reviewed this year? ■ Yes ☐ No

Does the BMP Plan fulfill the requirements of the General Permit? ■ Yes ☐ No

Summarize any changes to the BMP Plan since the last annual report. Attach additional pages if necessary.

BMP was updated to account for personnel changes, sampling locations, and clarification of effluent limitations.

## Operations and Production

| | |
|---|---|
| Total harvestable weight produced in the past calendar year in pounds (lbs): | 37,316 |
| Pounds of food fed to fish during the maximum month: | 2,851 |

List the species grown or held at your facility and the annual production of each in gross harvestable weight. If fish were released rather than harvested, list the weight at time of release.

| Species | Fish Produced | Receiving Water(s) to which Fish were Released | Month Released/ Spawned |
|---|---|---|---|
| Chinook Salmon | 2,666 | Lummi Bay/Southern Geogia Strait | May |
| Coho Salmon | 34,650 | Lummi Bay/Southern Geogia Strait | April |
| | | | |
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| | | | |

Fill in the table below with production numbers from the past year. List the **maximum** amount of fish on-site and the maximum amount of food fed **per month**.

| Month | Total Fish (lbs) | Fish Feed (lbs) | Month | Total Fish (lbs) | Fish Feed (lbs) |
|---|---|---|---|---|---|
| January | 0 | 0 | July | 0 | 0 |
| February | 0 | 0 | August | 0 | 0 |
| March | 23,584 | 2,851 | September | 0 | 0 |
| April | 13,975 | 1,408 | October | 0 | 0 |
| May | 841 | 237 | November | 0 | 0 |
| June | 0 | 0 | December | 525 | 154 |

Additional Comments:

## Solid Waste Disposal

Describe the solid waste disposed of during the calendar year (including fish mortalities).

| Type of Solid Disposed | Date Disposed | Location Disposed |
|---|---|---|
| Juvenile Mortalities | As needed | Garbage |
| Adult Carcasses | As Needed | Crab Bait/Garbage |
| | | |
| | | |
| Additional Comments: | | |

## Fish Mortalities

Include a description and the dates of mass mortalities in the past year (more than 5% per week). Attach additional pages, if necessary. Include total mortalities from all causes.

| Date | Cause of Deaths | Steps Taken to Correct Problem | Pounds of Fish |
|---|---|---|---|
| N/A | N/A | N/A | N/A |
| | | | |
| | | | |
| | | | |
| Additional Comments: | | | |

## Noncompliance Summary

Include a description and the dates of noncompliance events (including spills), the reasons for the incidents, and the steps taken to correct the problems. Attach additional pages, if necessary.

No known noncompliance events to report.

## Inspections & Repairs for Production & Wastewater Treatment Systems

| Date Inspected | Date Repaired | Description of System Inspected and/or Repaired |
|---|---|---|
| Weekly | | Inspection of rearing ponds/raceways and associated plumbing. |
| | | |
| | | |
| | | |
| | | |
| | | |

## Aquaculture Drugs and Chemicals

Please indicate whether you used each drug/chemical **during the past calendar year.**
Describe the use of each drug/chemical in more detail on the following pages.

| Used in the past year? | Drug or Chemical |
|---|---|
| ☐ Yes ☒ No | Azithromycin |
| ☐ Yes ☒ No | Chloramine-T: ***See additional reporting requirements on page 7*** |
| ☐ Yes ☒ No | Chlorine |
| ☐ Yes ☒ No | Draxxin |
| ☐ Yes ☒ No | Erythromycin - injectable |
| ☐ Yes ☒ No | Erythromycin - medicated feed |
| ☐ Yes ☒ No | Florfenicol (Aquaflor) |
| ☐ Yes ☒ No | Formalin - 37% formaldehyde: ***See additional reporting requirements on page 7*** |
| ☐ Yes ☒ No | Herbicide - describe: |
| ☐ Yes ☒ No | Hormone - describe: |
| ☐ Yes ☒ No | Hydrogen Peroxide: ***See additional reporting requirements on page 7*** |
| ☐ Yes ☒ No | Iodine: ***See additional reporting requirements on page 7*** |
| ☐ Yes ☒ No | Oxytetracycline |
| ☐ Yes ☒ No | Potassium Permanganate: ***See additional reporting requirements on page 7*** |
| ☐ Yes ☒ No | Romet |
| ☐ Yes ☒ No | SLICE (emamectin benzoate) |
| ☐ Yes ☒ No | Sodium Chloride - salt |
| ☒ Yes ☐ No | Vibrio vaccine |
| ☐ Yes ☐ No | Other: |
| ☐ Yes ☐ No | Other: |

## Aquaculture Drugs and Chemicals (cont'd)

Describe all drug and/or chemical treatments that occurred during the year. Fill out the information below for each drug or chemical, plus page 7 for water-borne treatments. Attach additional pages as necessary.

| | | | |
|---|---|---|---|
| Brand Name: N/A | | Generic Name: Vibrio vaccine | |
| Reason for use: Prevention of vibriosis caused by Vibrio anguilarum | | | |
| ■ Preventative/Prophylactic<br>☐ As-needed | Total quantity of formulated product per treatment (specify units): 1 quart | Total quantity of formulated product used in past year (specify units): 4 gallons | |
| Date(s) of treatment: April 18-19 | | | Total number of treatments in past year: 16 |
| Maximum daily volume of treated water: Approx. 25 gallons | Treatment concentration (specify units): 1:100 dilution | Duration and frequency of treatment(s): 30 second bath for all fish at marking | |
| Method of application: | ■ Static Bath<br>☐ Flow-through | ☐ Medicated Feed<br>☐ Other (describe): | |
| Location in facility chemical was used (check all that apply): | ☐ Raceways<br>☐ Incubation building | ☐ Ponds<br>☐ Off-line settling basin | ■ Other (describe): Used in a 30 gallon tub |
| Where did water treated with this chemical go? (check all that apply): | ☐ Discharged w/o treatment<br>■ Settling basin | ☐ Septic System<br>☐ Publicly owned treatment works | ☐ Other (describe): |
| Provide any additional information about how this chemical was used and/or special pollution prevention practices during use: Vaccine static bath water is discharged to the offline settling basin after use. | | | |

| | | | |
|---|---|---|---|
| Brand Name: | | Generic Name: | |
| Reason for use: | | | |
| ☐ Preventative/Prophylactic<br>☐ As-needed | Total quantity of formulated product per treatment: | Total quantity of formulated product used in past year (specify units): | |
| Date(s) of treatment: | | | Total number of treatments in past year: |
| Maximum daily volume of treated water: | Treatment concentration (specify units): | Duration and frequency of treatment(s): | |
| Method of application: | ☐ Static Bath<br>☐ Flow-through | ☐ Medicated Feed<br>☐ Other (describe): | |
| Location in facility chemical was used (check all that apply): | ☐ Raceways<br>☐ Incubation building | ☐ Ponds<br>☐ Off-line settling basin | ☐ Other (describe): |
| Where did water treated with this chemical go? (check all that apply): | ☐ Discharged w/o treatment<br>☐ Settling basin | ☐ Septic System<br>☐ Publicly owned treatment works | ☐ Other (describe): |
| Provide any additional information about how this chemical was used and/or special pollution prevention practices during use: | | | |

## Aquaculture Drugs and Chemicals (cont'd)

### *Additional Reporting Requirements for Water-Borne Treatments*

- If a water-borne treatment was used during the calendar year, Permittees must include detailed records/calculations as an attachment to this Annual Report in order to demonstrate how the maximum effluent concentrations of solution and active ingredient were calculated for each chemical.
- EPA recognizes that water-borne treatments may vary in the volume of the vessels treated, concentration, quantity of product, etc. Permittees must provide the information listed in the following tables for a reasonable worst case (i.e., maximum effluent concentration) scenario, not for each individual treatment.
- Permittees must submit this information and calculate the maximum effluent concentration for each water-borne chemical used during the past calendar year.
- See also Appendix D for the Chemical Log Sheet.

| **Static Bath Treatments** | |
|---|---|
| Tank Volume | Liters |
| Desired Static Bath Treatment Concentration | µg/L |
| Volume of Product Needed | Liters Product |
| Maximum Effluent Concentration of:<br>1) Solution and 2) Active Ingredient | Solution:<br>Active Ingredient: Specify Units |
| Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day | Specify Units |
| Maximum % of Facility Discharge Treated | % of Total Discharge |

| **Flow-Through Treatments** | |
|---|---|
| Tank Volume | Liters |
| Calculated Flow Rate | Liters/Minute |
| Duration of Treatment | Minutes |
| Desired Flow-Through Treatment Concentration of Product | µg/L |
| Amount of Product to Add Initially | Liters Product |
| Amount of Product to Add During Treatment | mL/Minute |
| Total Volume of Product Needed | Liters Product |
| Maximum Effluent Concentration of:<br>1) Solution and 2) Active Ingredient | Solution:<br>Active Ingredient: Specify Units |
| Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day | Specify Units |
| Maximum % of Facility Discharge Treated | % of Total Discharge |

## Changes to the Facility or Operations

| Describe any changes to the facility or operations since the last annual report. |
|---|
| A new pond vacuum system was installed to improve ease of use and effectiveness. |

## Signature and Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly evaluate and gather the information submitted. Based on my inquiry of the person or persons, who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

| | |
|---|---|
| Printed name of person signing | Title |
| Merle Jefferson Sr. | Natural Resources Executive Director |
| Applicant Signature Merle Jefferson | Date Signed 1-17-19 |

## Submittal Information

Send the complete, signed information, along with any attachments, to the following address:

U.S. EPA Region 10, OWW-191

Washington Hatchery Annual Report

1200 Sixth Avenue, Suite 900

Seattle, WA 98101-3140